

Notice of Allowability

Application No.

10/726,700

Examiner

Cheryl Lewis

Applicant(s)

COTNER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the applicants' communication with the examiner, an interview held on March 29, 2007.
2. ☒ The allowed claim(s) is/are 1, 3-20, and 22-35, renumbered as claims 1-33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 4/14/07.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Claims 1, 3-20, and 22-35 are allowed. These claims have been renumbered as claims 1-33.
2. Claims 2 and 21 have been cancelled.

Drawings

3. The drawings filed on December 4, 2003 are accepted by the Examiner.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Ramraj Soundararajan on March 29, 2007.

4. Claims 1, 11, 22, and 30 have been amended as follows:

1. (Currently Amended) A method for facilitating performance of 2-phase commit operations between transaction managers and resource managers in a database cluster, said method comprising the steps of:

amendment or amendment may be filed

no issue fee

recording indoubt transaction entries for each member of a database cluster via a shared memory device, said shared memory device located remote from said database cluster; and upon detecting failure of a transaction manager, issuing instructions to perform a ROLLBACK or COMMIT based upon said recorded indoubt transaction entries in said shared memory device.

11. (Currently Amended) A coupling facility recording indoubt transaction entries for each member of a remote database system, said coupling facility comprising:

- a) a coupling facility list structure recording indoubt entries associated with each member of said database system, said coupling facility implemented as a memory device shared between said members of said remote database system; and
- b) an interface for communicating with said database system and a transaction manager said interface issuing instructions to perform a ROLLBACK or COMMIT based upon said recorded indoubt transaction entries in said coupling facility list structure.

22. (Currently Amended) A method as implemented in a coupling facility operatively linking, over a network, a database cluster with one or more transaction managers, said method comprising the steps of:

- (a) creating a coupling facility list structure in said coupling facility;
- (b) receiving an instruction from a member in said database cluster to create an entry in said coupling facility list structure, said instruction sent by said member in said database cluster after receiving a PREPARE TO COMMIT message regarding a transaction from a transaction manager; and

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(c) creating said entry corresponding to said transaction in said coupling facility list structure, said entry comprising a global transaction identifier, a timestamp identifying when said entry was created, and a state indicating that said transaction is an indoubt transaction;

wherein created entries in said coupling facility list structure are used to perform COMMIT or ROLLBACK operations in said database cluster.

30. (Currently Amended) An article of manufacture comprising computer usable medium having computer readable program code executed by a processor embodied therein facilitating performance of 2-phase commit operations between transaction managers and resource managers in a database cluster, said medium comprising:

(a) computer readable program code recording indoubt transaction entries for each member of a database cluster via a shared memory device, said shared memory device located remote from said database cluster; and upon detecting failure of a transaction manager,

(b) computer readable program code issuing instructions to perform a ROLLBACK or COMMIT based upon said recorded indoubt transaction entries in said shared memory device.

REASONS FOR ALLOWANCE

5. The following is a statement of reasons for the indication of allowable subject matter:

computer readable program code executed by a processor embodied therein facilitating performance of 2-phase commit operations between transaction managers and resource managers in a database cluster, said medium comprising:

The prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including 'recording indoubt transaction entries for each member of a database cluster via a shared memory device, said shared memory device located remote from said database cluster; and upon detecting failure of a transaction manager,

issuing instructions to perform a ROLLBACK or COMMIT based upon said recorded indoubt transaction entries in said shared memory device.' as recited in independent claim 1 and similarly recited in independent claim 11 and 30.

As per claim 22, the prior art of record does not teach the combination of elements read in light of the specification including 'creating said entry corresponding to said transaction in said coupling facility list structure, said entry comprising a global transaction identifier, a timestamp identifying when said entry was created, and a state indicating that said transaction is an indoubt transaction; wherein created entries in said coupling facility list structure are used to perform COMMIT or ROLLBAC operations in said database cluster.

The remaining claims, 2-10, 12-20, 23-29, and 31-35, are dependent claims, thus these claims are patently distinct over the art of record for at least the above reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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NAME OF CONTACT

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

(571) 273-4113 (Use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).

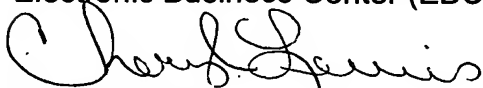
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cheryl Lewis
Patent Examiner
April 11, 2007